generating, responsive to alignment of the spread-spectrum signal samples with the [M] local sequence symbols, a large information-bearing output at a second clock cycle, the second clock cycle being later in time than the first clock cycle;

loading, at a third clock cycle, the programmable-matched filter with a next group of [M] local sequence symbols, the third clock cycle being later in time than the second clock cycle;

receiving a next group of [M] spread spectrum signal samples;

correlating the next group of [M] local sequence symbols against the next group of [M] spread spectrum signal samples; and

generating, responsive to alignment of the next group of spread spectrum signal samples with the next group of [M] local sequence symbols, a large information-bearing output at a fourth clock cycle, the fourth clock cycle being later in time than the third clock cycle.

10. (Twice Amended) The method as set forth in claim 9, further including the steps of:

loading the programmable-matched filter with a next group of [M] local sequence symbols;

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receiving a next group of [M] spread-spectrum signal samples; and

correlating the next group of [M] local sequence symbols against the next group of [M] spread-spectrum signal samples;

loading, at a fifth clock cycle, the programmable-matched filter with a third group of [M] local sequence symbols, the fifth clock cycle being later in time than the fourth clock cycle;

receiving a third group of [M] spread spectrum signal samples;

correlating the third group of [M] local sequence symbols against the third group of [M] spread spectrum signal samples; and

generating, responsive to alignment of the third group of spread spectrum signal samples with the third group of [M] local sequence symbols, a large information-bearing output at a sixth clock cycle, the sixth clock cycle being later in time than the fifth clock cycle.

Please add the following claims:

--~~39~~ 34. A spread-spectrum-matched-filter apparatus, for use with a spread-spectrum receiver on a received spread-spectrum

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signal having a pilot-spread-spectrum channel generated from spread-spectrum processing a pilot-bit-sequence signal with a pilot-chip-sequence signal and a data spread-spectrum channel generated from spread-spectrum processing a data-bit-sequence signal with a data-chip-sequence signal, the pilot-chip-sequence signal and the data-chip-sequence signal being different from each other, comprising:

a code generator for generating a replica of the pilot chip-sequence signal and a replica of the data-chip-sequence signal;

programmable-matched means loaded with local sequence symbols, for correlating an incoming received spread-spectrum signal against the local sequence symbols and, responsive to having a programmable-impulse response set from the replica of the pilot-chip-sequence, for filtering from the received spread-spectrum signal, at a local sequence symbol rate, the pilot-spread-spectrum channel, to output a despread-pilot-bit-sequence signal with each bit of the despread-pilot-bit-sequence signal representing local sequence symbols and, responsive to having the programmable-impulse response set from the replica of the data-chip-sequence signal, for filtering from the received spread-spectrum signal, the data-spread-spectrum channel to output a despread-data-bit-sequence signal;

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a frame-matched filter having a frame-impulse response matched to the pilot-bit-sequence signal for filtering, at a bit rate, the bits of the despread-pilot-bit-sequence signal and generating a peak-pilot-correlation signal in response to the despread-pilot-bit-sequence signal matching the frame-impulse response; and

a controller, coupled to said programmable-matched means and said code generator, responsive to the peak-pilot-correlation signal, for setting, from said code generator, said programmable-matched means with the replica of the pilot-chip-sequence signal for matching said programmable-matched means to the pilot-chip-sequence signal and, responsive to the peak-pilot-correlation signal, for setting at a time delay from the peak-pilot-correlation signal from said code generator, said programmable-matched means with the replica of the data-chip-sequence signal for matching said programmable-matched means to the data-chip-sequence signal.

E2

35.
~~40~~. The spread-spectrum-matched-filter apparatus as set forth in claim ~~39~~ 34 with said programmable-matched means further including:

an in-phase-programmable-digital-matched filter, coupled to said code generator, responsive to the replica of the

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pilot-chip-sequence signal generated by said code generator for despreading from the received spread-spectrum signal, an in-phase component of the pilot-spread-spectrum channel as a despread in-phase component of the pilot-bit-sequence signal, and responsive to the replica of the data-chip-sequence signal generated by said code generator for despreading from the received spread-spectrum signal, an in-phase component of the data-spread-spectrum channel as a despread-in-phase component one the despread-data-bit-sequence signal; and

a quadrature-phase-programmable-digital-matched filter, coupled to said code generator, responsive to the replica of the pilot-chip-sequence signal generated by said code generator for despreading from the received spread-spectrum signal, a quadrature-phase component of the pilot-spread-spectrum channel as a despread quadrature-phase component of the pilot-bit-sequence signal, and responsive to the replica of the data-chip-sequence signal generated by said code generator for despreading from the received spread-spectrum signal, a quadrature-phase component of the data-spread-spectrum channel as a despread-quadrature-phase component of the despread-data-bit-sequence signal.

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36.
~~41~~. The spread-spectrum-matched-filter apparatus as set forth in claim ~~39~~ 34 wherein said frame-matched filter includes:

an in-phase-frame-digital-matched filter having an in-phase impulse response matched to an in-phase component of the pilot-bit-sequence signal for generating an in-phase peak-pilot-correlation signal in response to the in-phase component of the despread-pilot-bit sequence signal matching the in-phase impulse response; and

a quadrature-phase-frame-digital-matched filter having a quadrature-phase impulse response matched to a quadrature-phase component of the pilot-bit-sequence signal for generating a quadrature-phase peak-pilot-correlation signal in response to the quadrature-phase component of the despread-pilot-bit sequence signal matching the quadrature-phase impulse response.

37.
~~42~~. The spread-spectrum-matched-filter apparatus as set forth in claim ~~40~~ 35 or ~~41~~ 36 further including a demodulator, coupled to said in-phase-programmable-digital-matched filter and to said quadrature-phase-programmable-digital-matched filter, for demodulating the despread-in-phase component of the despread-data-bit-sequence signal and the despread-quadrature-phase component of the despread-data-bit-sequence signal as a received-data-bit-sequence signal.

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